/334 cont./

241 Before taking possession of a new plot of land the
423 Chiriguano is always careful to make sure that there is no trace
243 of previous cultivation. Otherwise the former owner or his
[685] descendants would have the right to lodge a complaint against him to the chief of the village.

[824] The Chiriguano makes known his new property right by planting any edible plant before the rainy season, for example, the large squash (gindako-wasu) which spreads everywhere and is not smothered by the underbrush. He can equally well insure possession of the chosen terrain by knocking down the underbrush all around and making big gashes in the trees (1).

[171] 1. Compare this manner of insuring property rights with the method observed by the Caxinawa /Cashinawa/ in the same circumstances: "I saw (an Indian is speaking) rising ground which is suitable for a planting. I am going to make a planting for this summer. I broke many branches on this hill to mark this excellent place. No one can make his clearing on this hill. This hill is excellent; do not go there to make your planting." (Abreu, p. 69.)

241 In the middle of the dry season, say, in August, the
243 Indian, with a long stick sharp on both sides, fells the underbrush which encumbers his future field and sets fire to it. This operation has the further advantage of fertilizing the soil, thanks to the bed of ashes, which is a rather good fertilizer.

The cultivated fields are usually cleaned up after the harvest.
[231] The domestic animals, who feed there with little expense, are first let out there, and then the fields are set afire.

[221] Sowing takes place in the month of November when the first rainstorms have softened the soil. This time is announced by
[821] the appearance of the Pleiades (itïu) above the horizon early in the morning.

532 /480 cont./

Figure 11. Guanaco (José Miguel).

• [821] Figure 12. (A)t blue jaguar who lives in the sky (personification of the spots on the moon) getting ready to eat the moon (B) and the sun (C), thus bringing on an eclipse.

Chapter XIV

The Treatment of Illnesses

Sorcerers and Remedies

956 178 [123] Sorcerers. Medicine men have become so rare among the Chiriguano that I could not get to know a one during my whole trip. Only on the upper Pilcomayo did they allude in front of me to a talented paye who lived in a nearby village.

Although great sorcerers endowed with supernatural powers and surrounded with great prestige no longer exist, there still must be in each village a man or woman capable of curing certain illnesses and of pronouncing incantations.

A scene I witnessed at Timboy (Salado River, upper Pilcomayo) demonstrates well that the profession of sorcerer, less important though it may be, has nevertheless not disappeared. [122] I was living in the home of a Bolivian half-breed whose child's body was covered with purulent pimples. His parents began by appealing to my medical knowledge, but I declared myself incompetent to treat this case or any other. They then 95 [824] called an old Indian woman, who appeared one morning with a plant in her hand, a kind of wild pumpkin which the half-breeds call sandía del monte. This plant, crushed and mixed with hot water, is used for external washing. They stretched the child out on the ground and commanded him to hold himself motionless. The old woman sat down near him and began to mutter inaudible incantations which she interrupted only to spit often on the limbs of the little patient. Then she would take up her recitation again, at the same time spreading the saliva over his body from head to feet. Nordenskiold (5, p. 44,

/464 cont./

4. To stop dysentery, one must drink a decoction made of corn and watermelon seeds ground together.

5. Stitches in the side are treated by drinking a fragment of armadillo shell ground up and by rubbing the ailing place with a portion of this same calabash heated.

6. Tumors and swellings of the throat or knee are made to disappear by applying on the sore region the leaves of a shrub called urukuna, heated in a pot. Another herb (yunduriimbiu) has the same virtue.

/465/ Urukuna leaves put in compresses on the skull dissipate headaches, protect one from congestion, and cure erysipelas. The leaves of yandipa (bedomdilla) have all the virtues of urukuna.

7. Hemorrhages are stopped by means of latex or the roasted leaf of the liana ñupuapempe.

8. Kaa-upaya is an efficacious herb in cases of stomach ailments; and soto root cures pains in the feet (rheumatism?).

9. Guaya is a liana which cures any swelling in the side.

10. Goiter, rare among the Indians, is attributed by them to the sun. They treat it with tutía, a yellow fruit which reminds one of an apple, or by putting around the neck compresses of the blood of the gallinazo, caranchu, or buenburria, kinds of vultures.

11. Ophthalmia or conjunctivitis is doctored with drops extracted from the bark of the algarrobillo or with the glue taken from the bud of the membiría plant. The leaves of yandi-wope are excellent for cases of ophthalmia.

12. A variety of caraguatá makes diarrhea stop.

13. The flower kaa-ro (bitter herb) cures skin eruptions and is as good for malaria.

14. The herb inái (tooth of water) is a remedy against whooping cough, which can also be treated with an infusion made of boiled or roasted wasps and drunk warm.

15. Tingi bark attached around the belly is excellent for fighting dropsy, as are the leaves of the aturu (palo de india), a tree reminiscent of laurel, or the herb kaa-paye, taken as an infusion.

2:Métraux E-5 (1929) 1948 SF10 Chiriguano SF10
Chane SF8

C 756 554

The shamans (ipaye) enjoyed considerable prestige. When invited by a village to assist its inhabitants in some predicament, they were received with marks of great respect and were lavishly entertained. They served the community as rain makers and as doctors. In the latter capacity, they treated patients or protected the whole village against epidemics. Their curing technique followed the usual South American pattern of blowing and sucking the sick person. They retired to small cabins to communicate with spirits. Blowing tobacco smoke played a large part in the shamanistic ritual. The medicine men were expected to discover the evil charms that threatened the individual or the community as a whole. Shamans were often put to death for their failure to bring rain or to dispel an epidemic. Old women were often called to cure diseases which required the administration of drugs.

C 756 755
Ee 887 759

During carnivals, which, under the Bolivian influence, have become a period of wild rejoicing, young men wearing masks (pl. 44) of soft wood amuse the spectators by their antics and tricks. As the best masks are those carved by the *Chané*, it is likely that the clown interludes are survivals of dances by masked persons representing nature spirits or ghosts, such as are performed by many *Arawak* tribes. The *Chané* and *Chiriguano* masked characters collect food and depart amid the tears of old people.

Ee 541 535 532
177 174

MYTHOLOGY AND FOLKLORE

C 773 821 [789]

Cosmogony.—The Sun is a man and the Moon is his wife. In the evening the Sun enters a river which he follows until he rises again. An eclipse of the Sun or of the Moon is caused by the attack of a "purple" or "yellow" jaguar. Everybody then makes as much noise as possible to frighten off the celestial feline.

C [805]

The appearance of the Pleiades, which the *Chiriguano* call "a swarm of bees," announces the harvest season. Their yearly course serves also to reckon time. The *Chiriguano* identify Scorpio with a fenced field, in the center of which is the miraculous spade of Aguara-tunpa. In the black skies near the Milky Way (the road of the rhea), they see a celestial ostrich (rhea), the head of which is the Southern Cross. The Magellanic Clouds are the ashes of a fire built by a couple who went to the sky. (See Lehmann-Nitsche, 1924.)

Folklore.—Most of the *Chiriguano* folklore recorded by Nordenskiöld (1912) was obtained from a *Chané* of the Parapeti River region. The collection of myths and tales made by Métraux (1930 b) in *Chiriguano* villages shows that both groups, in spite of their different origin, share substantially in the same folklore. Certain motifs in the *Chané* version, however, have not been recorded among their ancient *Chiriguano* masters, and may well be *Arawak* traditions which have survived among them. An example is the theme, which is well known in the Guianas, of the

Ee 773 114
Ee 773

/11 cont./

133 From Igüembre Canton natural and artificial lakes begin to appear, the first ones end in Cuevo Canton and the later ones begin to appear from Buyuive, vice-Canton of Ñancaroinza, and continue through Caipipendi, Carandaiti, and Parapiti, on the right bank. Some of them may well dry up during the year, but if the rains are plentiful they will easily last until the new rainy season. The lakes are a great benefit in the arid zones, and without them there would be no life, since there is none where they are lacking; it is precisely through the lack of water that it is difficult to cross the plains of the Gran Chaco to get to Paraguay more quickly. A railroad from Santa Cruz to Isoso and from the east to Oriente in a straight line would avoid all difficulty; it would be 100 leagues through level, only slightly irregular terrain.

Climate

132 ●821 Without taking into consideration an occasional isolated exception, in the entire area or in most of it we can state as a general principle, through experience, that in the vast region inhabited by the Chiriguano race there are only two seasons of the year, called summer and /12/ winter, despite which they distinguish by name four seasons, "Aracu, Roi, Maentiha, Ipiroha," hot, cold, planting, and harvest, or summer, winter, spring, and fall.

132 The two seasons of which I speak are very marked: the summer by the abundance of rain, and the winter by drought. The first rains begin in the month of November or sometimes at the end of October, increase gradually and are frequent in the month of January, scarce in February, irregular in March, and generally stop in the month of April, or after Easter. The rains are preceded and accompanied by lightning and thunder, which fill one with fear, especially when there is added to them violent wind, and they end leaving in the air an incomparable freshness; rarely does rain fall calmly as in other parts of the world.

The rain is nearly always brought by the south wind, rarely by the others, and never or almost never by the north wind. In the area now inhabited by the Chiriguano snow is almost never seen; on rare occasions it falls in the highest

/143 cont./

Prayers

771 Certainly the fact that this race does not have external manifestations of worship greatly attracts the attention of men of science and missionaries. The Chiriguano is born and grows like a little lamb is born and grows. They do not know where they come from, and all of their actions are reduced to pure nature. The Chiriguano never raises his mind or his heart upward. He discusses the firmament; he counts the stars and even separates them into groups as though by astronomical principles; he admires the grandiosity of the sun and of the moon, he understands the beneficence of the nourishing world, but the totality remains mute and silent before the works of nature or of creation. Visible things do not lead the intelligence of the Chiriguano to the knowledge of the Cause of such effects, and inasmuch as he has a rather vague idea of God, he does not offer worship to Him or to anything which resembles Him.

782 It is consequently useless to look for idols in this country, just as it is extremely useless to inquire about temples or hermitages for religious gatherings. Prayers, however much they may be investigated, are very abridged, if there are any, and are not worth being called such, because they are rather a kind of boasting by the one uttering them, in order that all may see that he is eloquent in speaking. This is what they do in the general gatherings when they drink for many days and eat in the plaza. Enthusiasm comes in the heat of drinking, and, on seeing an immense multitude, someone will raise his voice, saying more or less the following: Cheru Tunpa, icaviño taicó, pucu emeé cheve cherecovena, cherimbiuna emoñimoña cheve, tacherori catu taicó, anu tamano. My God, make me be well off, give me a long life, make my food be produced, give me happiness, do not allow me to die (2).

2. The only thing that the Chiriguano wants is to live forever, but he sees that it is impossible and contents himself with expressing his vehement desire, but he does not believe that death comes to him naturally.

/143 cont./

000 The sun is a beneficent star; it gives us light, warms us in winter, causes food to grow for men and animals, /144/ it is a creation which God has put in the world so that, as a second cause it will maintain the universe and all things in it, this being the principal virtue granted to it by the Maker of all things.

821 782 The Chiriguano understands the virtue of the sun to the extent that it strikes his corporal senses, and thus it was with difficulty in ancient times that he elevated his spirit to the contemplation of another invisible Being superior to the star of the day, from which it came about, according to some writers, that the Chiriguano would address some prayer to this king of the sky, like some tribe, and timidly and courteously uncover the head upon meeting an intrepid fox.

But however much I asked about this subject, no one gave me any information about such a prayer. The only thing they said that the old people did was to call the sun father and ask it not to hide its face. Today, when the country is invaded by whites and [797] even by people from the Old World, today when there is no Chiriguano place that has not been trod by the foot of the missionary, founding missions here, passing through there, and in another place exploring the will of the Indians, all has changed and those who do not know of the existence of the true God are few. There are few Indians who do not know that the sun is a work of God and therefore incapable of receiving outward demonstrations of veneration, when they do not even render it to God (1).

1. It is very probable that formerly the ancients were happy when the sun came out, as anyone would be happy, and that they would have a special fondness for it, whence comes the argument by some that they address prayers to it, but it is natural for man to be happy when the sun appears.

/150 cont./

756 Even for rain the sorcerers perform their incantations with
789 their maize-husk cigar, making a turn in the planted fields,
731 but if the drought is general, the incantations are public per-
•824 formed in the town in front of the house of the principal cacique.
[197] One of these was performed in the early days of the above-mentioned mission. The missionary had admonished them to stop it, but when they answered insolently, he formed or organized a commission with shotguns and old rifles. The three or four sorcerers fled, but one of them fell into the hands of the commission, was punished for his insolence, and in a few minutes a torrential shower refreshed the entire territory of the mission.

756 In concrete cases, when the sorcerer is required by a
755 particular family, he establishes himself in the house of the sick man; he asks him a thousand questions regarding the sickness, the houses that he has frequented, the friends with whom he has drunk, the companions with whom he has played, and the things that he has earned. Then he lights his maize-husk cigar and smokes, blowing the smoke over the body of the patient, especially the affected part.

Then, depending on the greater or lesser seriousness of the illness, depending on the nature of the disease, whether it requires blows or joltings, which is the most likely, he delivers them so atrociously that they are likely to end the patient's life, and if not he is content with rubbing the affected part hard /151/ and sucking it with his mouth, extracting from the patient's body the worms which the rascal has hidden in his mouth (1).

[164]

1. In many cases worms can be found in the bodies of these Indians between the flesh and the skin. I myself, with the use of fenelina, have made worms as big as chickpeas come out of their bodies, without their having had any wound at all.

/153 cont./

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and does not know how to do it goes to the sorceresses, pays them, and obtains it.

This seems to be a fable which in itself does not merit any importance, as indeed it is not given any by Father Giannecchini, who does not deny it in his writings, as Señor del Campano states. Poison exists among the Chiriguano. They do not extract it from chamico, which is a species of datura, nor do they extract it from other plants or herbs. The sorcerers reveal nothing; the young people do not know about it, and the few old people who are alive only tell what has been said above. Be that as it may, this is a belief of the tribe, and as such I have told it.

Lunar Eclipse

●821

One night while waiting for a lunar eclipse, I found myself in conversation with the cacique Anduari of the mission of San Buenaventura de Ivu, and I was reminded of something which I remembered regarding this phenomenon which was about to occur on the moon. Chiriguano towns are true hells during an eclipse, because of the shouts, cries, whistles, and every warlike instrument which they use to make noise. When I came to the missions, /154/ the war of Curuyuqui had just happened, and when I heard so much and such an extraordinary hubbub on the night of an eclipse, I believed that it was a new uprising, as was also believed by the inhabitants of Cuevo, who came out armed to find out the cause of so much noise (1).

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1. The Italian professor Mantegazza states that the Chiriguano, in order to whistle loudly, take out the tembeta or button which they have in their lower lip. This is incorrect and denied by all; what the renowned anthropologist refers to must be a special case, since they cannot even drink without the button.

/154 cont./

773 821 [115]

I asked Anduari the cause of such an uproar, and he told me the following story. The jaguar had sworn to destroy the Chiriguano, as had also the Aguara-Tunpa. The Tunpa, who knows everything and always compassionate toward them, told this to his relatives, who are in the sky and who are called Güirayohasa, the constellation of the Pleiades. These relatives then informed those who were in danger, and they took the precaution of hiding themselves.

Nevertheless, two of the most valiant Chiriguano, in order not to be in continual fear, prepared to put an end to the jaguars. They went out into the countryside, made themselves two long swords of soto wood, and thus armed, they found out where the jaguars drank water. They hid, watching for the arrival of their enemies in order to slay their leader.

They did not have to wait long; when all of them came by and when the leader put his head down to drink from the spring of crystalline water, one of the Chiriguano delivered a great blow on his head with the sword, separating it from the body; with the utmost facility the rest of them fled in several directions, and the head, jumping, disappeared from their presence.

It was pursued by both warriors, but the head prayed to the moon, which it encountered on its way, and the moon took pity and hid it in its breast, and when the warriors arrived and inquired about the jaguar's head, the moon answered in all calmness that it knew nothing and had seen nothing. Naturally they had no faith in its words, and they went away from there, saying to it that one day the tiger would be seen and everyone would know who it was (2).

2. When the chief of the jaguars disappeared, the latter were finished and there was calm, the Indians being able to go out once more without fear to their tasks in the fields.

When the young men were far away, the moon rejoined the jaguar's head to its body, and it lived, but it no longer wished to live on earth /155/ for fear of its enemies, preferring to remain with its liberator, reviver, and benefactor, but later it made its ferocity known.

/155 cont./

793 ●821 As the Chiriguano had predicted, the jaguar very soon began to put into practice in the heights of the moon its natural inclination to kill and eat defenseless beings. Its peaceful, compassionate, and defenseless liberator lent itself marvelously to its voracity, and the tiger attacked it, but the moon came crying to the inhabitants of the earth, to the Chiriguano, calling them to its defense, if they did not wish to remain eternally in the dark (1).

1. If the eclipse is total, they believe that the jaguar has swallowed the moon whole; if it is partial, this is because it did not have time to swallow it.

The Indians, despite the bad deed that the moon had done against them, and more for their convenience than out of compassion, came out of their towns en masse, some with shouts others with whistling, and others with the horns of cows and bulls; they frightened off the Yagua rogũi, yellow jaguar, who out of fear of the Chiriguano, remembering what had happened to it, desisted from its intention, and since then, every time a lunar eclipse occurs, they do the same thing. The fabulous belief passes from the old to the young, from grandfathers to grandsons.

114 821 On a bright moonlit night the missionary was sleeping peacefully in the Ivu mission, and the moon was obscured by a total eclipse. This was during the month of June in 1909. The [191] missionary did not know the language, and I was absent. The children, who spoke a little Spanish, in their desire for the missionary to see the phenomenon of the eclipse, awakened him with a great uproar, shouting to him: Jaguar is eating moon (2).

2. They say nothing of the eclipse, total or partial, of the sun, doubtless because it occurs very rarely; the old people have but an obscure idea of this phenomenon.

/176 cont./

342
335 The post thus set up served as a central point for the new house; next he traced a more or less round circle without having any recourse whatsoever to the rules of theoretical geometry, being ignorant of its existence; nevertheless, his reason helped him enough. Having traced the circle and having secured ahead of time enough forked poles /horquillas/ some two meters high, he put them in holes some 50 or 60 centimeters deep around the circumference, leaving the entrance facing the plaza.

Once these poles have been well fixed in the ground around the center pole, the Indian, with the help of his companions and relatives, prepares rafters, straw, bejuco or ceiba bark, hollow cane or small sticks. He then begins, after an appropriate period of rest, to put in place first the rafters, tying them to each other, the center post serving as a prop, and then he ties them to the poles around the circumference, one to each pole, until he finishes. Before beginning, the precaution is taken of singeing the bejuco. The rest is done as has been described in the modern houses, but when the placing of the roof and the walls around are finished, the center post, which would only be an obstruction for the fire which is constantly burning in the center of the house, is removed (2).

[824] 2. Singed bejuco does not rot, regardless of the season in which it has been pulled up. It is resistant and is not attacked by the wood borer. Those who use it so much have experience.

● [821] Everyone knows that conical houses are very solid, when care is taken to select good wood and /illustration appears here/ /177/ to cut it during the waning moon. If the rafters have the fork downward, conical houses are much more solid (1).

[554] 1. A house in conical form among the ancient Chiriguano indicated great ability on the part of the builder and status on the part of its owner; for this reason they were owned only by caciques, rich persons, and other important persons.

/229 cont./

881 304 [821] For the piercing of the lip, a full moon is necessary, so that the open wound will not have bad results, will gradually get larger, and will not form a swelling. The boys who are ready for the tembeta must not be younger than seven years of age or older than 12. In the first case they would not be able to stand the pain, and in the second the piercing would be difficult because the lip would have hardened.

Thus, when the moon is at its maximum and the boy is of the proper age, he little by little becomes prepared for the operation. The mother and father prepare him with loving words, stimulating his vanity so that he may afterward be esteemed and loved by the girls. Then they make him understand the need for piercing his lip, so that everyone will know [186] [885] that he belongs to the noble Chiriguano race and is worthy of being a member of it; finally, they make him understand that only when he has the tembeta will the grandees of the nation respect him and treat him kindly (1).

[869] [171]

1. Christian mothers, to encourage their sons to endure suffering and even martyrdom itself, show them Heaven, an invisible dwelling place. The savage infidels encourage their children with earthly promises, such as the love of women; qui de terra est; de terra loquitur; this is the effect of ignorance.

The boy hears the nice things that his parents say to him as a deaf man hears music. What he considers more and what occupies all his concern is the pain that the opening of his lip is going to cause him. Nevertheless, he cannot hide or run away; he must submit to the operation in spite of his fear of it. In fact, before the full moon the father goes with his son to the house of the surgeon and tells him the reason for his visit, asking him to make his boy into a man. The surgeon-doctor makes an appointment for the next day or another one, and in the meantime he looks for a second boy to undergo the

304 881 759

/284 cont./

000 The philosopher Focion said that he who has the fewest desires to satisfy is the happiest man on earth. This is a truth based on experience, but it is not true happiness; it is part of it, because complete happiness is not attained here.

The true Chiriguano dressed in the old way and his wife with her tipoy must have been the happiest beings on earth, but as they are children of the first man, they also inherited affliction, pain, and death. These three things are almost always the consequence of illness, and they come from the intemperate life that I have described, just as they also come from the drinking and eating.

515 751 The Chiriguano takes no care of his person, although he loves life, which he would like to be eternal, however much he may walk dragging himself along. His foodstuffs are not at all [262] hygienic; he eats /illustration appears here/ /285/ often and with [252] too much greed rotten meat, vegetables, and maize itself, which [271] he parches but never cooks completely. The water he drinks is not [273] always clear or free of microbes and small worms that are visible; the very chicha that is manufactured with such elaborate effort and care is drunk still sour, and, finally, shelter is unimportant. In periods of great heat he lies on the ground, taking on his back the burning rays of the sun; he protects himself little in the abrupt changes of temperature, and if he gets wet in the rain or has taken a voluntary bath of cold water or water heated by the sun, he lets his clothes dry on his body; from these come the illnesses that I shall presently enumerate, illnesses that he suffers from, which make him unhappy and then carry him to the grave.

753 821 The rainbow that God gave to Noah as a sign that He would not flood humanity again with the waters of a new deluge is a sad sign for the Chiriguano. If this so natural phenomenon appears in a town and begins in front of or over a house, when it disappears it does not end or turn to nothing but hides itself in the belly of one of the residents, who in time will get sick and die of dropsy, from which it follows that this illness, which is rare among them, is caused by the rainbow (1).

1. Another natural phenomenon is the whirlwind.

[TEXT CONTINUES ON P. 385]

/285 cont./

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which rises continually to the sky in these interminable plains, taking behind it all of the trash that it finds along its way. It is called Cusumino, and, according to them, it causes pains in the feet, knees, and bones. When a whirlwind begins in a town, they try to cut it with a knife.

164

Illnesses and Remedies

The most common illnesses among the Chiriguano are the intermittent fevers that are endemic, tuberculosis or consumption, eye disease, convulsive coughing, diarrhea, dysentery, mange or itch, and tumors accompanied by a kind of leprosy that covers a large part of the body. The intermittent fevers appear at the time of the first rains and continue until the time of the fruits and fresh maize. These fevers are not fatal, but one who is attacked by them has a rather afflicted life. Their remedies are vegetal; 757 they boil quebracho or algarroba bark, and they drink this water, but it does not always have a salutary effect. /286/ If a small dose of quinine is administered during the intermittent fevers, they immediately get well (1).

1. They get well with a small dosage, perhaps because their bodies are not accustomed to the remedies of the apothecary. Another efficacious remedy for the intermittent fevers is bitter coffee or coffee with a [illegible] sugar.

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The itch, tumors, and leprosy do not cause death. 262 Chiriguano food is almost always saltless. They are not careful 263 in selecting it, and stinking meat does not disgust them. Their 751 water is not always clear; they bathe at any hour and, after bathing, 515 do not dry their bodies. If it rains, they let the wet clothing dry 080 on their person. From this and other causes come the many skin

When I offered a

/182 cont./ Chacobo a cigarette, he took only a few puffs, kept the smoke in his mouth for a few seconds, and then threw the cigarette away. Nevertheless, the Chacobo plant tobacco, but use it exclusively as a remedy. If a Chacobo gets a "boro," a fly larva, "Dermatomya," under his skin, he covers the fly larva's entry spot with tobacco powder and is then able to squeeze out the dead larva in a few hours. The Choroti and Ashluslay are passionate smokers. /183/ For them smoking is one of the greatest enjoyments of life. These contrasts are quite strange.

P 276 249 757
C Ce 276 171

The Chiriguano and the Chané have extensive plantings which, in contrast to the clearings of the Choroti and Ashluslay in the wilderness, are well tended. In former times they used spades made of hard wood with attractive handles (Fig. 89), but these have now gone out of use and have been entirely supplanted by iron spades. Not infrequently the fields lie far from the villages, as, for example, in the Caipipendi valley. This is due to the fact that water is not available throughout the year everywhere in the vicinity of the plantings.

Ee 241 [412] [177]
C Ce [312]

As has been mentioned, the produce obtained is stored in granaries built on piles (Fig. 84), so that it will be at least somewhat protected from rats, moisture, etc. These granaries are seen everywhere, except among the Chané on the Rio Pilcomayo.

C Ce 251 343
Ee 241

The fields are fenced in with fences built brush-shaped, which are often difficult to climb over. There is no fertilization of the fields. On the other hand, a field that has been exhausted is left to lie fallow.

C Ce [821] ●

The time of sowing is determined by the position of the Pleiades, "ychu." When this passes across the horizon very early in the morning, it is sowing time. When the rainy season begins, everything must be sowed.

Ce 241 462

The men clear and sow. Everyone helps with the harvest, men, women, and children. Among the Chané in the Itiyuro valley the men sowed the maize, that is, they took care of the larger plantings, whereas the women were gardeners and planted gourds, beans, etc.

C [241] [462]

c /293 cont./
539 South America. Since, however, this is not the proper place
171 for comparative studies with regard to the legends collected by me, I have contented myself with only presenting the material.

c 539 As we have seen, we learn to understand some of the religious conceptions of the Indians from the legends. They are also interesting from the viewpoint that a whole assortment of little features from the life of the Indians is reproduced. They give us a glimpse into their imaginative life.

c 539 Only the content of the legends collected by me, not
114 the form, is usable as research material. I hope that the
126 native South American ethnographers in particular will add to the collection made by me and also write down the legends in the original languages. In order to be able to do this, however, a complete /294/ mastery of them will be necessary. The best method would be to let the Indians tell these legends into a phonograph.

Ee
Ee
•824 The Indians and Natural Phenomena.

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[773] In one of the Chané legends the story is told of how Yahuéte, the two-headed jaguar, was on the point of de-
Ee vouring the moon. Maringay called Yahuéte "Yahuaróhui."
[776] These Indians explain eclipses of the sun and moon by saying
Ee that the sun and moon are attacked by Yahuéte. The Choroti,
[171] too, as has been mentioned, speak of a predatory animal that
[776] attacks the sun and the moon.

If one wanders with an Indian through forest and meadow on a starlit night, the starry sky is his compass and his watch. He will point to Orion or some other constellation and show how much farther it will move before one arrives.

Ee He does not give names to many constellations, but he
824 knows them all. The Chané call the part of the Milky Way nearest the Southern Cross "yándurape," that is, ostrich-way; the Southern Cross, along with a few adjacent stars, is

Ce 821 /294 cont./ "yánduinyaka," the head of the ostrich; the two largest stars in Centaurus are "yánduipoy," necklace of the ostrich; Venus is called "coemilla," morning; Orion with the sword "húirayúasa" (birds meet). Another constellation is "huázupucu," roebuck horn; another, "borévi," tapir. They call the Pleiades "ychu," but they do not know the meaning of the name, and this is the most important constellation of all.

Ce 821 If one sits with the Indians in their huts, they can indicate the position of the most important constellations in the sky without seeing them. They know their position at all times of the year.

Ce 821 805 Ce [241] The starry sky is not only the watch and the compass of the Indians. It is also their calendar. In this the Pleiades play an especially important part here, as among other Indians. When they first /295/ become visible on the horizon at dawn, the proper time has come for the sowing of maize. The fact that this relatively unimportant constellation plays such an important role in the astronomy of the Indians has given rise to fantastic speculations about Babylonian influence.

C Ce 821 If one asks Indians about the size of the stars and their distance from us, they stand there perplexed and prefer not to answer at all. They understand, however, that they must be far away.

C 821 773 The stars do not play an important role in the legends. The Chiriguano chief Maringay, however, said there was once a brother who was playing with his little sister. They tried to catch each other, they sang and jumped. Now they are sitting in the firmament as two stars.

Two clusters of stars in the southern part of the southern firmament are the ashes of an old man and an old woman, a Chiriguano once told me. It was an evening in August.

Ce [821] [773] In legends, the sun is a man and the moon a woman. The Chané children stole fire from an old man, the sun, and the two-headed Yahuéte hid under the tiru of the moon-woman when he was being pursued by the son of the armadillo-god.

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/295 cont./ The waxing and waning of the moon, according to Maringay's explanation, was caused by the fact that a larger or smaller piece of it is put in the firmament.

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The sun rises over the water and then shines for us during the day. In the evening it dips into the water again, and at night it shines for the other human beings on the other side of the earth. This was Maringay's idea of the course of the sun. I believe, however, that he learned this from the whites.

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When a meteor, "baeréndi," falls, it means the death of a chief. About a shooting star, the Chané on the Rio Parapiti said: "He is going to sleep with his girl." Maringay was more realistic in his explanation. "The star lets something fall," said the old man.

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/296/ When it thunders, Chiquéritunpa is walking about. The medicine men, "ipáye," are able to make rain. When the swallow, "máchurupimpi," flies low, it will rain, the Indians say. Another bird, "chóncho," announces rain. If one is going traveling, one should not put a jug in water, but dip up the water with a calabash, otherwise it will rain. In a

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myth about the destruction of the world related to me by the Chané on the Rio Itiyuro, the world is destroyed by water. The Chané on the Rio Parapiti told me how the world was

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destroyed by a storm. Otherwise the wind plays an unimportant role in the myths. If one places a warmed jug in flowing water, there will be a storm, say the Chané on the Rio Parapiti. The rainbow, "yii," is a snake.